

incised as shown. Lateral lobes of ninth segment tapering to apex and pointed. Subgenital plate connected to an internal basal sclerotized plate which is small and bandlike.

*Types*.—Holotype, male: Mount Baker, Wash.,

along small creek, elevation 6,000 feet, August 29, 1946, W. E. Ricker. Allotype, female, and 9 male and 1 female paratypes: Same data as holotype. Deposited in the collection of the Illinois Natural History Survey.

ZOOLOGY.—*Some millipeds of the families Polydesmidae and Xystodesmidae.*<sup>1</sup>  
RALPH V. CHAMBERLIN, University of Utah. (Communicated by C. F. W. MUESEBECK.)

The new forms of millipeds diagnosed and illustrated in the present paper are represented in the author's collection where all types are for the present retained.

#### Family POLYDESMIDAE

##### *Ergodesmus* n. gen.

A genus close to *Nearctodesmus*. The gonopods are short and compact. As in *Nearctodesmus*, there are three divisions or branches in the telopodite of the male gonopods, but one of these is anterior and one posterior in position, instead of both arising from the anterior side of the principal division. Of the three branches the anterior one is segmented, with its distal subdivision slenderly acuminate and forming part of a circle. The posterior branch is closely applied to the main or median division against the apical part of which it curves.

Orthotype: *Ergodesmus compactus*, n. sp.

##### *Ergodesmus compactus*, n. sp.

Dorsum light reddish brown. Legs and antennae yellow.

The distinctive features of the gonopods of male, as described above under the genus, are shown in Fig. 1.

Width of male holotype, 2.5 mm.

*Type locality*.—Washington: Between Golden-dale and Mayfield. About a dozen males and females taken May 20, 1941, by R. V. Chamberlin.

*Other records*.—Washington: Richland, two males taken September 17, 1935, by R. V. Chamberlin; Orondo, several specimens, mature and immature, taken August 11, 1929, by Edith S. and R. V. Chamberlin.

##### Genus *Kepolydesmus* Chamberlin

*Kepolydesmus* Chamberlin, Ann. Ent. Soc. Amer. 3 (4): 246. 1910.

<sup>1</sup> Received January 3, 1949.

Generotype: *Kepolydesmus anderisus* Chamberlin.

A genus distinguished from *Nearctodesmus* primarily in having the outer branch of the telopodite of the male gonopods divided into two segments, which are distinctly separated, as shown in the accompanying figure for *K. hesperus*. Four species are at present known for the genus.

##### *Kepolydesmus anderisus* Chamberlin

Fig. 2

*Polydesmus* (*Kepolydesmus*) *anderisus* Chamberlin, Ann. Ent. Soc. Amer. 3 (4): 246, pls. 36: 6-9, 37: 1-4. 1910.

*Type locality*.—Idaho: Latah County, Kendrick.

*Other localities*.—Idaho: Kootenai County, Canyon, and Roselake, Fourth of July Canyon, R. V. Chamberlin coll., 1929; Clearwater County, Kooskia, males and females taken August 23, 1940

##### *Kepolydesmus hesperus*, n. sp.

Fig. 3

Dorsum reddish brown with caudal corners of tergites yellow. Antennae brown, in part of pink tinge. Legs light pink.

Outer branch of gonopods notably broader than in *mimus* but proportionately somewhat narrower than in *anderisus*, the apex of its distal division more acutely pointed than in *mimus*. The ectal hook at distal end of middle division larger than in the other two species mentioned and the adjacent distal lobe more acutely prolonged. See further Fig. 3.

Length, 25 mm; width, 3.8 mm.

*Locality*.—Oregon: Ashland. Four males taken September 9, 1935, by R. V. Chamberlin.

##### *Kapolydesmus mimus* Chamberlin

*Kepolydesmus mimus* Chamberlin, Proc. Biol. Soc. Washington 70: 10, pl. 10: 3. 1947.

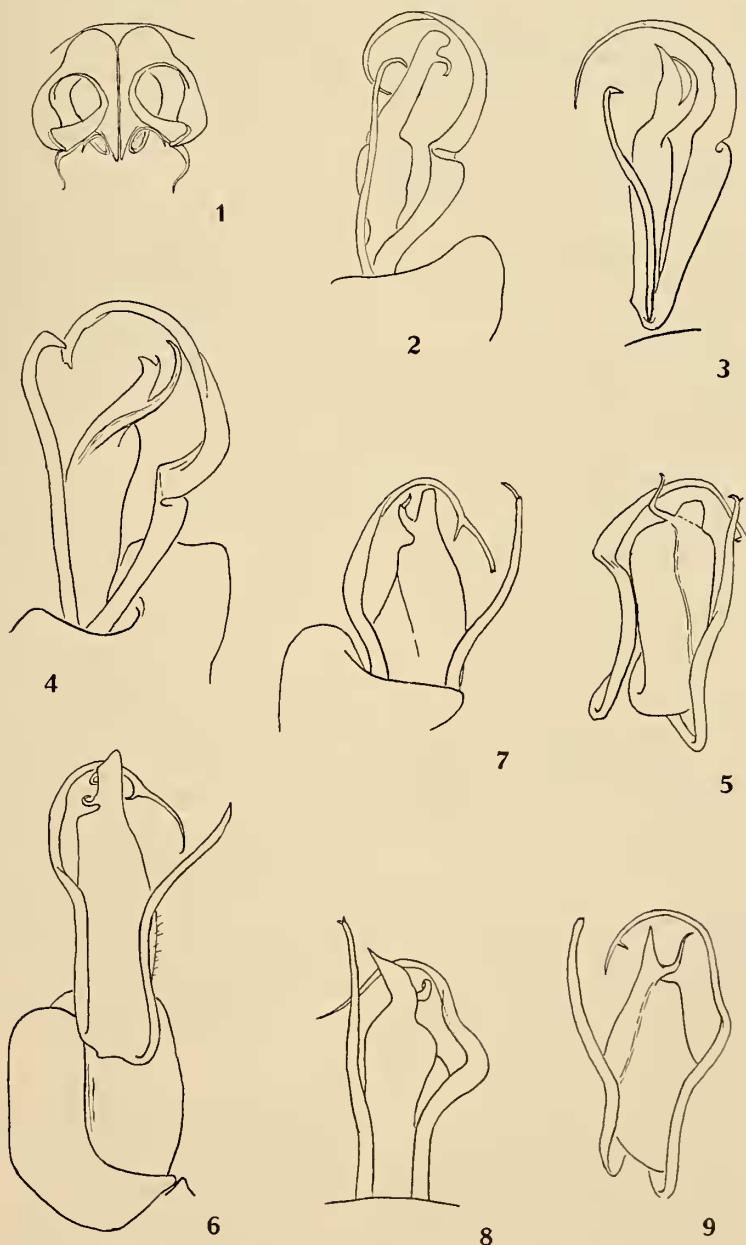
*Type locality*.—Washington: Skamania County Martha Creek at Carson.

*Other localities*.—Oregon: Canyon Creek, males and females taken September 9, 1935, by R. V. Chamberlin; near Roseburg, males and females, August 30, 1931.

*Kepolydesmus pungo*, n. sp.

Fig. 4

Dorsum and antennae dark reddish brown. The posterior corners of the tergites yellow as usual. Legs pink or yellow of a decided pinkish tinge.



FIGS. 1-9.—1, *Ergodesmus compactus*, n. sp., gonopods of male; 2, *Kepolydesmus anderisus* Chamberlin, right gonopod of male; 3, *Kepolydesmus hesperus*, n. sp., right gonopod; 4, *Kepolydesmus pungo*, n. sp., right gonopod; 5, *Nearctodesmus amissus*, n. sp., left gonopod; 6, *Nearctodesmus brunrior*, n. sp., left gonopod; 7, *Nearctodesmus campicolens*, n. sp., left gonopod; 8, *Nearctodesmus pseustes*, n. sp., right gonopod; 9, *Nearctodesmus renigens*, n. sp., right gonopod. All anterior aspects.

Of the known species probably closest to *K. minus*. Distinguishable from that species most readily in the terminal lobe of the principal branch of the gonopods, this lobe being bifid instead of entire and acuminate. For this and other details see Fig. 4.

Width, 3.2 mm.

*Type locality*.—Oregon: Horsetail Falls. Two adult males, one adult female, and several immature specimens taken August 4, 1929, by R. V. Chamberlin.

*Other record*.—Oregon: Latourell Falls. Males and females taken by Edith S. and R. V. Chamberlin, August 4, 1929.

#### Genus *Nearctodesmus* Silvestri

*Nearctodesmus* Silvestri, Zool. Anz. **35**: 364. 1910.

Orthotype: *Nearctodesmus cerasinus* (Wood)

Seven species, as listed below, are at present known to conform to this genus. Of these six are named and described here as new.

#### *Nearctodesmus amissus*, n. sp.

Fig. 5

Dorsum brown, tinged with usual cherry red, which may have been more pronounced in the living specimens.

Set apart on the basis of differences in the gonopods of the male. These much suggest those of *N. pseustes*. The terminal lobe of the median body is shorter and not acutely pointed as it is in the latter; the mesal process presents no subapical tooth and the distal end of the outer process is bent at right angles, not finely drawn out. See further Fig. 5.

Width, 2.8 mm.

*Type locality*.—Oregon: exact locality not given. Many specimens were collected.

*Other record*.—British Columbia: Vancouver. Males and females taken "in mossy tree trunks" in September 1932 by Hugh Leech.

#### *Nearctodesmus brunnior*, n. sp.

Fig. 6

In contrast with *N. cerasinus*, with its cherry-red color, the present species has the dorsum definitely brown, with caudal corners yellow. The legs are proximally yellow, and darker, more brownish distally. Antennae brown.

In the gonopods the slender outer process, which curves about the free end of the main body, is like that of *N. cerasinus* in having a lateral

barb toward distal end, but this is more remote from the apex. The principal body of the gonopod differs from that of *cerasinus* in the structure of the distal end, where it is narrowed and presents two characteristic short processes which curve caudad. See further Fig. 6.

Length, about 24 mm; width, 3 mm.

*Locality*.—California: 9 miles north of Crescent City. Six specimens taken in the redwoods on Highway 199 by Roth and Brown.

#### *Nearctodesmus campicolens*, n. sp.

Fig. 7

Coloration typical, the dorsum being reddish brown, sometimes darker and almost chocolate colored, and the legs reddish yellow or pink.

This species is closest to *N. brunnior* in structure of the gonopods in having the outer branch spurred some distance proximad of the tip, etc. It is distinct from that species in having but a single subapical hook on the median body instead of two. Other features are as shown in Fig. 7.

Length, 24 mm; width, 3 mm.

*Locality*.—California: Prairie Creek Park, Route 101, Red Wood Fort. July 10, 1940, male and females taken by S. and D. Mulaik.

#### *Nearctodesmus cerasinus* (Wood)

*Polydesmus cerasinus* Wood, Proc. Acad. Nat. Sci. Philadelphia 1864: 6

*Type Locality*.—Oregon. In view of the fact that several species of *Nearctodesmus* are now known, with probably others yet to be found, it seems impossible at present to be sure of Wood's original species. It is probably not the form figured by Silvestri as such (Zool. Anz. **35**: 364, fig. 10, 1910) but is very close to the species here described as *brunnior*.

#### *Nearctodesmus pseustes*, n. sp.

Fig. 8

Dorsum reddish brown, but the cherry-red pigment characteristic of most species of the genus is less pronounced in the type specimen than in most. Legs yellow.

Structurally the species suggests *Kepolydesmus minus*. Though the gonopods of the male are superficially similar to those of that species, they differ in having the outer branch more sinuous and especially in lacking the submedian break or joint in this branch prominent in *minus*. The

mesal branch is longer and presents a small sub-terminal tooth. The principal body is also distally different as shown in fig. 8.

Width of male holotype, 2.5 mm.

*Locality*.—Oregon: Boyer. Male holotype taken June 13, 1936, by J. A. Macnab.

*Other records*.—Oregon: Comstock, seven specimens taken September 16, 1935, by R. V. Chamberlin. Washington: Precise locality not given. One male and an immature specimen.

***Nearctodesmus renigens*, n. sp.**

Fig. 9

Dorsum and antennae brown, the legs yellow.

Similar to *N. brunrior* in having a lateral spur toward distal end of the outer process of gonopods, but readily distinguished from that species in having only one subapical hook on the median body instead of two and in other details as shown in Fig. 9.

Width, 3 mm.

*Locality*.—Oregon: Probably near Corvallis, male holotype and 2 females.

***Nearctodesmus salix*, n. sp.**

Fig. 10

The metatergites above and laterally rose-colored. Antennae brown. Legs yellow, in some cases partly tinged with pink or rose.

The male is distinct from other known species in the comparatively heavy and furcate terminal portion. The inner ramus without subapical tooth, middle body with main branch extruding farther distad beyond it than is usual. See further Fig. 10.

Width, 3.2 mm.

*Type locality*.—California: 12 miles west of Willow Creek. One male and two females taken July 9, 1946, by S. and D. Mulaik.

**Genus *Pseudopolydesmus* Attems**

*Pseudopolydesmus* Attems, Denkschr. Akad. Wis. Wien **67**: 270, 479. 1898.

Orthotype: *Pseudopolydesmus serratus* (Say).

***Pseudopolydesmus caddo*, n. sp.**

Fig. 11

A small form in which the dorsal tubercles are only moderately developed and in which the

lateral margins of the keels show three notches behind the tooth at anterior corner.

Gonopods of the male characterized by having the ectal margin of the blade above middle expanded into a characteristic lamina, as shown in Fig. 11.

Length, 11–12 mm; width, 1.7 mm.

*Type locality*.—Louisiana: Caddo Parish, 5 miles northwest of Shreveport. Two males and one female taken April 13, 1936, by Leslie Hubricht.

This species is closely related to *P. neoterus* Chamberlin, known from New Orleans, in its size and general structure but differing in the details of the gonopods, e.g., in the lateral lamina and distal portion of the telopodite.

**Family XYSTODESMIDAE**

***Amplocheir*, n. gen.**

In general structure of body agreeing with *Xystocheir*. The gonopods differ from those of *Xystocheir* in having the telopodite divided by a joint above its middle, the distal segment having two aciculiform spines while proximad of the joint there are three slender spines.

Orthotype: *Amplocheir sequoia* (Chamberlin).

***Amplocheir sequoia* (Chamberlin)**

Figs. 12, 13

*Xystocheir sequoia* Chamberlin, Bull. Univ. Utah, biol. ser., **6** (5): 15; \*3: 28. 1941.

*Type locality*.—California: Tulare County, Sequoia National Park, 10 miles east of Hammond.

***Cheiraxus*, n. gen.**

A genus separated from *Xystocheir* primarily on the basis of the presence of a fifth spine on the telopodite of the gonopods. This arises on the mesal side from the base of the two larger distal mesal spines.

Orthotype: *Cheiraxus sapiens*, new species.

***Cheiraxus sapiens*, n. sp.**

Figs. 14, 15

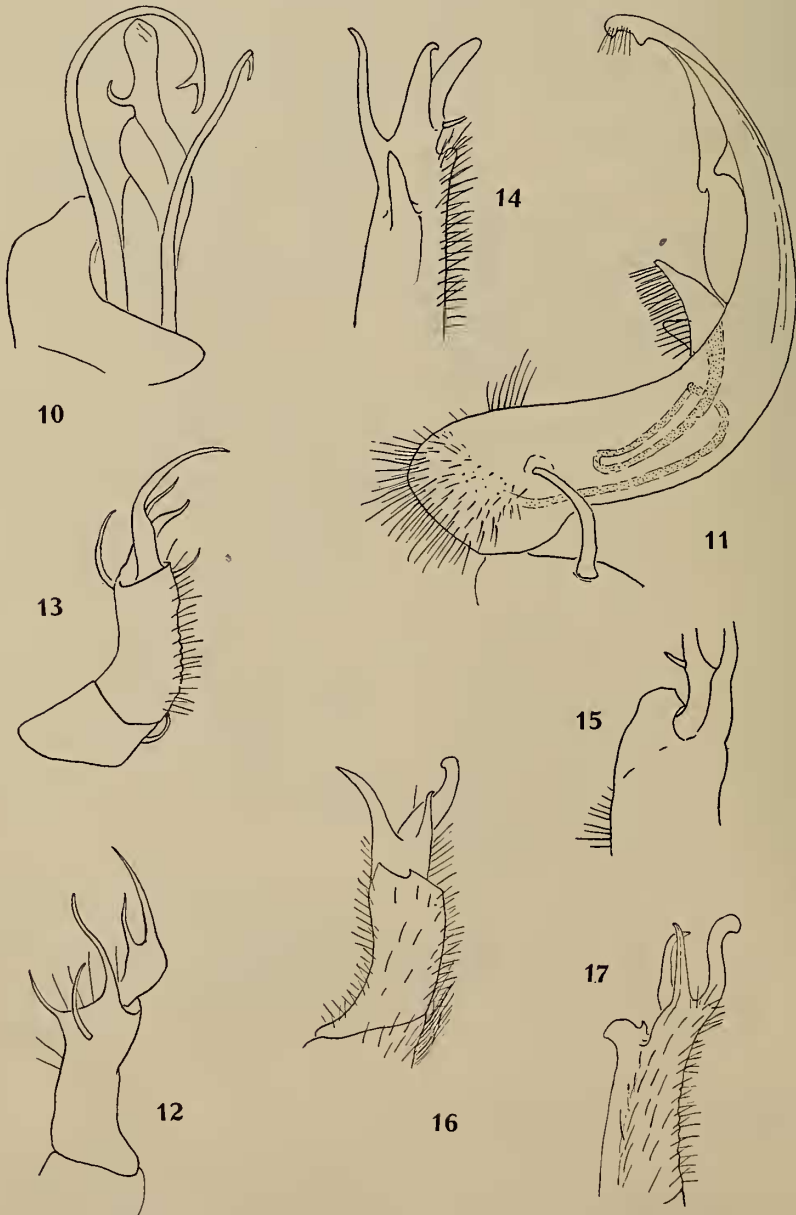
The male of this species seems to be readily distinguishable in the gonopods from any previously known in bearing a short straight spine on mesal side, just proximad of the point of separation of the two terminal rami, as well as in the details of the other branches as shown in the figures (Figs. 14, 15). Though *Amplocheir sequoia* has a similar supplementary spine, this



in the latter species is much longer and the form and relations of the principal rami are obviously different.

In size and proportions like *X. acuta* Cook with the lateral carinae similarly strongly and

acutely produced. It might prove to be the same as Cook's species, but it seems hardly possible that this observer would have overlooked the characteristic supplementary spine mentioned above.



FIGS. 10-17.—10, *Nearetodesmus salix*, n. sp., left gonopod, anterior aspect; 11, *Pseudopolydesmus eaddo*, n. sp., right gonopod, mesal aspect; 12, *Amplocheir sequoia* (Chamberlin), right gonopod, anterior aspect; 13, *Amplocheir sequoia* (Chamberlin), right gonopod, subectal view; 14, *Cheiraxus sapiens*, n. sp., left gonopod, distal portion of telopodite, anterior view; 15, *Cheiraxus sapiens*, n. sp., right gonopod, distal portion of telopodite, ventroectal view; 16, *Delocheir taibona* (Chamberlin), left gonopod, subanterior aspect; 17, *Delocheir taibona* (Chamberlin), left gonopod, distal portion of telopodite, submesal aspect.

Length, 34 mm; width, 6.4 mm.

*Type locality*.—California. Palo Alto. Male holotype taken in 1928 by R. V. Chamberlin.

**Delocheir, n. gen.**

Differing in the male gonopods from *Xystocheir* in having the anterior finger or ramus replaced by a lamina or thin transverse plate.

Orthotype: *Delocheir taibona* (Chamberlin)

In addition to the generotype the two new species diagnosed below belong in this genus.

***Delocheir taibona* (Chamberlin)**

Figs. 16, 17

*Xystocheir taibona* Chamberlin, Ann. Ent. Soc. Amer. 5: 170; \*10: 1, 2. 1912.

*Type locality*.—California: Region of Monterey Bay (Pacific Grove, etc.).

***Delocheir conservata*, n. sp.**

Fig. 18

Related to *D. taibona* but apparently lighter colored, the dorsum pale fawn-colored with keel yellow. Legs light yellow. Keels normal; the processes of those of eighteenth tergite with apices in line with those of the nineteenth.

From *taibona* conspicuously different in the gonopods. In these the posterior terminal spine is long and sigmoidally curved, much exceeding the adjacent median spine, relatively much longer than in *taibona* and differently shaped. The anterior lamina broad, its margin evenly rounded and entire, lacking the conspicuous notch present in the other two species. See further Fig. 18.

Length, about 28 mm; width, 6 mm.

*Type locality*.—California: Monterey County, Hastings Reservation. A male and female taken separately on April 9, 1938, and March 25, 1938.

***Delocheir dalea*, n. sp.**

Fig. 19

Close in general structure to *D. taibona*, with which it agrees in having the lower or anterior (ventral) finger or ramus of *Xystocheir* replaced by a thin transverse membrane or lamina. It is readily distinguishable from that species in the form of the posterior terminal spine of the gonopods this being relatively much shorter and ending in a characteristic lamina. The transverse membrane lacks the notch present in that of *taibona* and *conservata* toward its outer end. For

these and other differences in detail see Fig. 19 in comparison with Figs. 16 and 17.

Dorsum and legs brown. Keels of tergites of posterior part of body produced in degree usual in *Xystocheir*; processes of eighteenth segment nearly attaining level of apices of those of the nineteenth.

Length, about 37 mm; width, 6.5 mm.

*Type locality*.—California: Brookdale. Males and females taken March 13, 1913, by R. V. Chamberlin.

**Genus *Xystocheir* Cook**

*Xystocheir* Cook, Harriman Alaska Exped. 8 (1): 53. 1904.

Orthotype: *Xystocheir acuta* Cook.

***Xystocheir francisca*, n. sp.**

Fig. 20

This is the smallest of the known species of *Xystocheir*. The color above is light testaceous-brown in the preserved specimen. The lateral keels are only moderately produced, with the apices of processes narrowly rounded.

The gonopods of the male seem distinctive. In these the posterior terminal spine is lamellate and curves conspicuously mesad across the erect anterior one; the anterior ramus is proportionately short, bends strongly ectad above base and is expanded at distal end. See further Fig. 20.

Width, 5 mm.

*Type locality*.—California: San Francisco. Male holotype taken by C. C. Cross.

***Xystocheir milpitas*, n. sp.**

Figs. 21, 22

Dorsum of the usual light testaceous-brown with keels paler. Legs yellow. Lateral keels but little produced except on most posterior segments; processes of nineteenth segment much reduced, those of nineteenth large and extruding caudal about to level of the apices of the former.

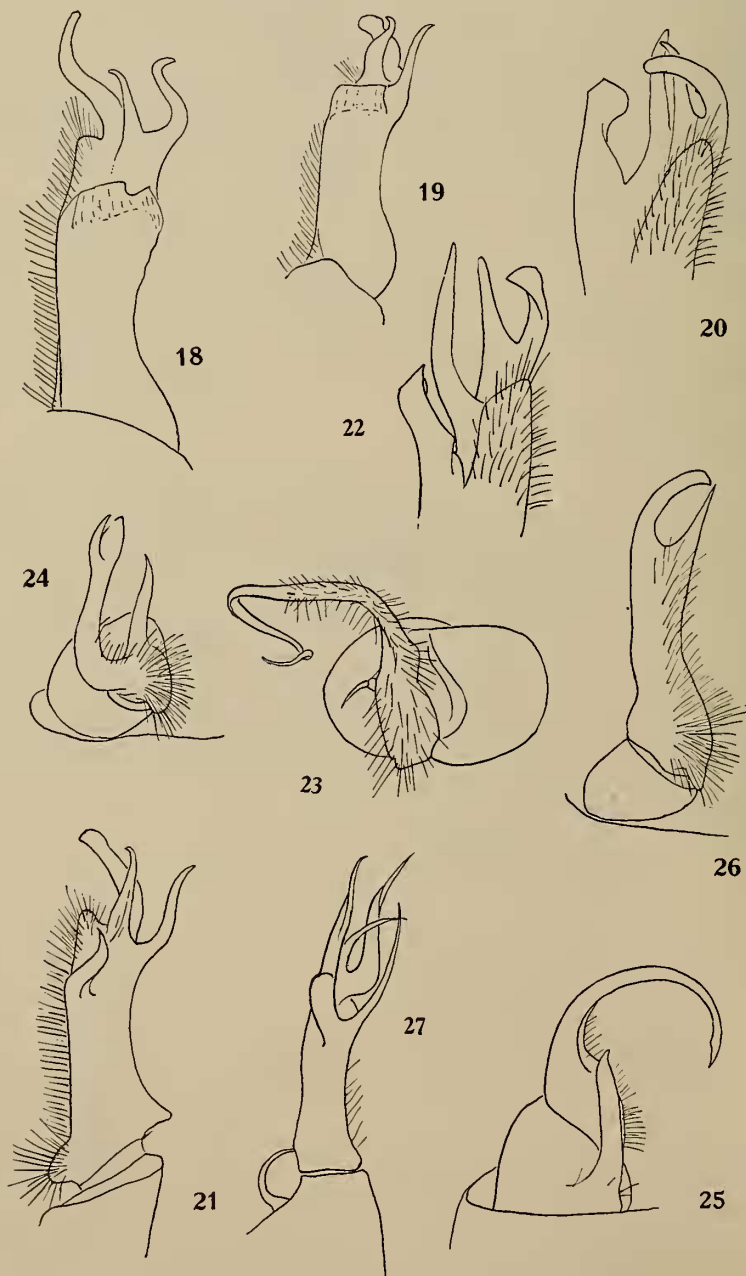
The two apical spines of the male gonopod but little divergent, the posterior (ventral) of these curving conspicuously mesad and a little expanded at the distal end. The anterior ramus curving ectad, distally subtruncate, with distal corner of end produced. See further Figs. 21 and 22.

Length, 28–30 mm; width, 6.2–6.5 mm.

*Type locality*.—California: Scrub pine hills east of Milpitas. Four specimens taken February 1, 1928, by J. C. Chamberlin.

Differs from *X. dissecta* (Wood) in details of

gonopods, e.g., in the anterior ramus, which is distally truncate with upper corner acutely produced instead of being distally rounded, etc.



FIGS. 18-27.—18, *Delocheir conservata*, n. sp., left gonopod, anterior aspect; 19, *Delocheir dalea*, n. sp., left gonopod, anterior aspect; 20, *Xystocheir francisca*, n. sp., left gonopod, apical part of telopodite, mesal view; 21, *Xystocheir milpitas*, n. sp., right gonopod, anterior view; 22, *Xystocheir milpitas*, n. sp., left gonopods, distal part of telopodite, mesal view; 23, *Apheloria tortua*, n. sp., left gonopod, ventral view; 24, *Epeloria nannoides*, n. sp., right gonopod, ventral view; 25, *Phanoria philia*, n. sp., right gonopod, anterior view; 26, *Zinaria mima*, n. sp., gonopod, anterior view; 27, *Xystocheir tularea*, n. sp., right gonopod, anterior view.

**Xystocheir tularea**, n. sp.

Fig. 27

The types of this form are too much bleached out from long preservation to reveal the original coloration with certainty, but it appears to have been testaceous,

This species is obviously distinct from *dissecta* and other known species in the form of the gonopods, particularly in the character of the anterior spine. This is relatively unusually long and is distally slenderly acuminate while proximally laminate. Of the other spines, the two outer ones are erect and long, while the mesal one is shorter and curves strongly ectad. See further fig. 27.

Width, 6.8 mm.

*Type locality*.—California: Tulare County, Sugar Loaf Mountain at altitude 6,000 feet. Male and female taken in April 1930 by K. Dennen.

**Genus Apheloria** Chamberlin

*Apheloria* Chamberlin, Can. Ent. 53: 232. 1921.

**Apheloria asburna**, n. sp.

Dorsum dark brown, in part chocolate-colored; a rather narrow but sharply defined band across caudal border of tergites, this expanding laterad and embracing entire keels; apical portion of cauda yellow; legs yellow and antennae brown.

Coxae of legs of posterior region conspicuously spined; spines of second joint large. Sternite not spined.

In form of telopodite of gonopods resembling *A. tigana* Chamberlin of North Carolina; but the blade narrower and the basal spine only moderately curved instead of being strongly uncate.

Width, 10 mm.

*Locality*.—Tennessee: 20 miles north of Nashville. One male taken July 17, 1933.

**Apheloria tortua**, n. sp.

Fig. 23

Tergites dark brown to black with a large yellow median area occupying the posterior two-thirds of length; keels yellow excepting the anteromesal corner. Cauda and legs yellow, antennae brown.

None of the coxae and sternites spined.

The male gonopods seem distinct in the form of the distal portion of the telopodite and of the basal spine as shown in Fig. 23.

Length, about 39 mm; width, 9 mm.

*Type locality*.—Virginia: Mountain Lake. One male taken by A. C. Cole in July 1942.

**Genus Epeloria** Chamberlin

*Epeloria* Chamberlin, Bull. Univ. Utah, biol. ser., 5 (3): 3. 1939.

Orthotype: *Epeloria talspoosa* Chamberlin.

**Epeloria nannoides**, n. sp.

Fig. 24

The type specimen, which is apparently not in full color, has the tergites light orange, with keels and a band across caudal border of each tergite yellow. Legs yellow.

The gonopods of the male are quite distinct from those of any previously described. See Fig. 24.

Width, 4 mm.

*Type locality*.—Florida: Gainesville. One male taken February 10, 1942.

**Phanoria**, n. gen.

Telopodite of male gonopod a simple apically acute blade curved in a semicircle; on anterior side of coxa a process in form of an erect blade, in this differing, for example, from *Sigmoria*.

Orthotype: *Phanoria philia*, n. sp.

**Phanoria philia**, n. sp.

Fig. 25

Dorsum dark brown, with a rather broad yellow band across caudal border of each tergite and its keels, the lateral borders of the latter and the cauda also yellow.

Posterior coxae bearing apically conical points or spines, but the sternites not spined.

Telopodite of male gonopod apically of hastate form. Anterior process from coxa a straight, apically acute blade. See further Fig. 25.

Width of male holotype, 9 mm.

*Type locality*.—Georgia: Clarkesville. One male taken April 27, 1943.

**Genus Zinaria** Chamberlin

*Zinaria* Chamberlin, Bull. Univ. Utah, biol. ser., 5 (3): 4. 1939.

Orthotype: *Zinaria cala* Chamberlin.

**Zinaria mima**, n. sp.

Fig. 26

Dorsum brown, in part chestnut; a narrow



yellow band along caudal margin of each tergite, this band somewhat expanded at middle, embracing caudal corner of keels and continued forward on lateral margin of keel in a narrow line, less broadly embracing keel than usual in *butleri*. Cauda yellow. Legs yellow.

In the gonopods the male differing from *butleri* in having the prongs of the telopodite more erect and distally less divergent as shown in Fig. 26.

Length of female allotype about 25 mm; width, 6 mm. Male holotype a little smaller.

*Type locality*.—Pennsylvania: Greene County. Two males and three females taken July 29, 1926, by T. L. Guyter.

Perhaps the northern representative of *Z. cala*, which it suggests in the position of the terminal prongs of the gonopods of male, but in *cala* these are more nearly parallel and thus much more widely divergent distally.

## PROCEEDINGS OF THE ACADEMY AND AFFILIATED SOCIETIES

### THE ACADEMY

#### 424TH MEETING OF BOARD OF MANAGERS

The 424th meeting of the Board of Managers, held in the Cosmos Club, January 10, 1949, was called to order at 8:05 P.M. by the President, Dr. FREDERICK D. ROSSINI. Others present were: H. S. RAPPLEYE, N. R. SMITH, W. L. SCHMITT, W. W. DIEHL, F. M. DEFANDORF, W. RAMBERG, C. F. W. MUESEBECK, W. W. RUBEY, W. A. DAYTON, C. A. BETTS, M. A. MASON, L. A. ROGERS, O. B. FRENCH, C. L. GAZIN, and, by invitation, H. E. McCOMB, R. J. SEEGER, ALAN STONE, F. C. KRACEK, L. V. JUDSON, F. H. H. ROBERTS, JR., and FRANK THONE.

The President announced that Ernest G. Holt, of the Soil Conservation Service, Department of Agriculture, had been delegated to represent the Academy at the Seventh Pacific Science Congress to be held in New Zealand during February 1949.

The Executive Committee met informally by telephone on January 10 and concurred in recommending to the Board of Managers that an additional \$156 be allotted to the Secretary's office to cover expenses incurred in 1948 beyond the original \$400 budget allotment.

The Board of Managers approved the additional sum for the 1948 expenses of the Secretary's office.

The chairman of the Committee on Meetings, Dr. R. J. SEEGER, discussed the problem of getting the membership out for the meetings. It was generally concluded that more emphasis should be put on joint meetings and that efforts should be made to get occasional meetings of more interest to engineering groups.

The chairman of the Committee on Member-

ship, H. E. McCOMB, presented three nominations for resident membership.

The chairman of the Committee on Monographs, Dr. L. V. JUDSON, announced that the monograph on *The Parasitic cuckoos of Africa* was in the process of being bound. The sum of \$2,300 was cited as the final cost of printing the monograph, indicating a cost of \$4.70 per copy necessary to secure a return of the investment on sale of one-half the issue. The committee recommended a figure of \$4.50 as the price to be charged and the Board of Managers concurred.

C. F. W. MUESEBECK, acting for the chairman of the general Committee on Awards for Scientific Achievement in 1948, presented the following three recommendations for the Awards:

*Biological Sciences*: Dr. ROBERT J. HUEBNER, of the National Institutes of Health, in recognition of contributions to our knowledge of the transmission of certain rickettsial diseases.

*Engineering Sciences*: Dr. MAXWELL K. GOLDSTEIN, of the Office of Naval Research, in recognition of distinguished research and development in the field of electronic engineering.

*Physical Sciences*: Dr. J. A. VAN ALLEN, of the Applied Physics Laboratory of Johns Hopkins University, in recognition of his work in nuclear physics and cosmic rays.

The Board of Managers accepted the recommendation of the Committee on Awards for Scientific Achievement.

The chairman of the Committee on Grants-in-aid for Research, Dr. F. H. H. ROBERTS, JR., announced that the fund for grants-in-aid available from the A.A.A.S. would this year amount to about \$325 and that applications for a grant from this fund are now receivable.

Capt. C. L. GARNER, having been retired from the gainful practice of his profession, was trans-